

Biodegradable polymers, the preparation thereof, and the use thereof for producing biodegradable moldings

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- WO9615174 (A1)
- EP0792310 (A1)
- US6258924 (B1)
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Abstract not available for JP11500468T

Abstract of corresponding document: **US6258924**

Biodegradable polyether esters P1 obtainable by reacting a mixture essentially comprising:(a1) a mixture essentially comprising:20-95 mol % of adipic acid or ester-forming derivatives thereof or mixtures thereof,5-80 mol % of terephthalic acid or ester-forming derivatives thereof or mixtures thereof, and0-5 mol % of a compound containing sulfonate groups,where the total of the individual mole percentages is 100 mol %, and(a2) a mixture of dihydroxy compounds essentially comprising(a21) from 15 to 99.8 mol % of a dihydroxy compound selected from the group consisting of C2-C6-alkanediols and C5-C10-cycloalkanediols,(a22) from 85 to 0.2 mol % of a dihydroxy compound containing ether functionalities of the formula I:where n is 2, 3 or 4 and m is an integer from 2 to 250, or mixtures thereof,where the molar ratio of (a1) to (a2) is chosen in the range from 0.4:1 to 1.5:1, with the proviso that the polyether ester P1 has a molecular weight (Mn) in the range from 5000 to 80,000 g/mol, a viscosity number in the range from 30 to 450 g/ml (measured in o-dichlorobenzene/phenol (50/50 ratio by weight) at a concentration of 0.5% by weight of polyether ester P1 at 25 DEG C.) and a melting point in the range from 50 to 200 DEG C., and with the further proviso that from 0.01 to 5 mol %, based on the molar quantity of component (a1) employed, of a compound D with at least three groups capable of ester formation are employed to prepare the polyether ester P1, and further biodegradable polymers and thermoplastic molding compositions, processes for the preparation thereof, the use thereof for producing biodegradable moldings and adhesives, biodegradable moldings, films and blends with starch obtainable from the polymers and molding compositions according to the invention.

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